IN THE APPLICATION

OF

Matthew Marx

FOR

Dumbbell Workbench

FILED WITH

THE UNITED STATES PATENT AND TRADEMARK OFFICE

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BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to exercise devices and, more specifically, to a workout bench having a plurality of incline adjustments and stanchions with means for receiving dumbbell weights. The dumbbell stanchion comprises a tubular structure having a base portion extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions comprise a weight rest stanchion that is slidably adjustable having apertures linearly arranged in conjunction with a locking pin provided on the main vertical stanchions. The bench comprises two cushions fixedly attached to individual frame structures each hingedly connected at the center. At the other distal end of the cushion frame are collapsible leg supports that fold up allowing the cushions to rest on the floor's surface at an angle from the pivot point. Along with internal extendable hinges for raising the cushions.

Description of the Prior Art

There are other weight stands designed for dumbbell use. Typical of these is U.S. Patent No. 4,477,074 issued to Bushnell on October 16, 1984.

Another patent was issued to Segrist, et al. on May 19, 1987 as U.S. Patent No. 4,666,150. Yet another U.S. Patent No. 5,411,459 was issued to Hayden on May 2, 1995 and still yet another was issued on December 5, 1995 to Ammoscato, et al. as U.S. Patent No. 5,472,397.

Another patent was issued to Hayden on April 1, 1997 as U.S. Patent No. 5,616,108. Yet another U.S. Patent No. 5,725,460 was issued to Marsh on March 10, 1998. Another was issued to Hayden on July 20, 1999 as U.S. Patent No. 5,924,964 and still yet another was issued on August 20, 2002 to Valention as U.S. Patent No. 6,436,016.

Another patent was issued to Ammoscato on December 4, 1995 as Canadian Patent No. 2,164,368. Yet another WIPO Patent No. WO 99/39778 was issued to Marcheschi on August 12, 1999.

U.S. Patent Number 4,477,074

Inventor: Donald D. Bushnell

Issued: October 16, 1984

A bench press apparatus having a bench carried on a frame. The apparatus includes two spaced apart upstanding members that have on their respective ends two spaced apart arms for receiving a barbell. Underneath the apparatus there is a support for supporting at least one dumbbell. Said support includes structure to prevent a dumbbell from moving laterally. On the underneath side of bench there is structure to support the bar of a barbell. The bar prevents the removal of a dumbbell from its support under the bench.

U.S. Patent Number 4,666,150

Inventor: Joseph S. Segrist

Issued: May 19, 1987

A saddle mountable on telescoping tubular members or permanent tubular members that will support a complete dumbbell cooperating with an open area centrally located throughout the dumbbell receiving area of saddle to allow a hand to pass through on the return of the dumbbell to the saddle. A guide positioned on saddle above open area that directs the plates or assembled weight of a dumbbell away from the open area positioning the dumbbell into its perfect resting area thus giving the user a unique device to support, receive and position a dumbbell into a saddle as well as the capability of positioning a heavy pair of dumbbells into a convenient liftable position to begin various exercises.

U.S. Patent Number 5,411,459

Inventor: Richard C. Hayden

Issued: May 2, 1995

A dumbbell rack attachment to be inserted into the column of an exercise weight bench having a single vertical support and a rack assembly with two grooved weight bearing surfaces divided by an open space for the hand to pass through so that the weights of a dumbbell can rest in the grooved weight bearing surface and not roll out.

U.S. Patent Number 5,472,397

Inventor: Vincenzo Ammoscato

Issued: December 5, 1995

An exercise bench for movably supporting a pair of dumbbells on opposed sides of the bench within reach of a user is disclosed. The inventive device includes a main frame having a seat supported thereby with a backrest pivotally mounted to the seat. A center stanchion extends from the backrest to the main frame and can be adjusted so as to position the backrest at a desired angle. A pair of dumbbell supports are pivotally mounted to the center stanchion and are each operable to movably support a dumbbell thereon. A foot actuator connected to the dumbbell supports by a cable is operable both to pivot the dumbbell supports into reach prior to commencing of an exercise procedure, and to pivot the supports out of the way during the exercise procedure.

U.S. Patent Number 5,616,108

Inventor: Richard C. Hayden

Issued: April 1, 1997

A dumbbell support attachment for holding a dumbbell from a barbell cross bar so that the dumbbell can be used with a typical weight lifting bench. Suspended from the barbell cross bar when it is supported, in the usual manner, above the weight lifting bench, the attachment provides the user with a convenient support on which to mount a dumbbell at the beginning and end of an exercise routine. The attachment includes a segmented section and an elongated hook, which together form an integral unit preferably fabricated from steel or the like. Adapted for mounting over the cross bar, the hook opens downwardly and has an inner surface disposed generally along a semicircular arc of slightly larger diameter than that of the crossbar. The segmented section, on the other hand, opens upwardly and has a curved inner surface with a radius of curvature which is larger than that of the outer periphery of the heaviest dumbbell weights to be used. So that the user, as he lies on the weight bench, can grab the dumbbell and lift it from its resting position within the segmented section, the bottom portion thereof defines two cutouts. The center of gravity of the attachment and one or more dumbbells supported therein is located directly below the barbell cross bar. Tabs attached to each end of the segmented section are provided to stabilize the attachment, preventing its rotation about the cross bar, whenever one or both of the dumbbells is taken out of or placed in the attachment.

U.S. Patent Number 5,725,460

Inventor: John P. Marsh

Issued: March 10, 1998

A bench-type weight support having racks at opposite sides of a bench is disclosed. The racks support adjustable saddles which receive weights such as dumbbells. The saddles are angularly disposed to provide the proper alignment when grasped by a user from a supine position. In the preferred embodiment, the bench has a seat and a back which are independently adjustable to provide a wide range of exercising positions.

U.S. Patent Number 5,924,964

Inventor: Richard C. Hayden

Issued: July 20, 1999

An attachment which can be mounted on popular weight lifting exercise equipment, to facilitate workouts using hand-held weights commonly referred to as dumbbells. The attachment comprises a rack assembly on which an athlete can support up to two dumbbells simultaneously. Readily adaptable for use with any weight lifting bench, the attachment includes a pair of mounting legs rigidly attached to distal ends of the rack assembly and an extension bar slideably connected to opposing parts of this assembly for adjusting the span between these mounting legs. By utilizing the span adjusting means, one can align the mounting legs with the weight support columns of any particular weight lifting bench even though the spacing between these columns may differ substantially from that of other benches. Moreover, the rack assembly is attached to the mounting legs in such a way that when a dumbbell rests on the assembly, the center of gravity of the dumbbell is disposed generally in the same vertical plane as are the weight support columns, thereby helping to stabilize the attachment. This feature allows an alternate embodiment of the attachment to be used safely in combination with free-standing weight support columns.

U.S. Patent Number 6,436,016

Inventor: Anthony J. Valentino

Issued: August 20, 2002

Disclosed is a weight-lifting apparatus for use by bodybuilders and professional power lifters. The apparatus includes a specially designed dumbbell and dumbbell suspension hook. The dumbbell has ends to which weights may be added and removed to reach certain lifting weights. The dumbbell further has an attached handle from which the dumbbell may be suspended from the hook, which is located on a weight bench. The handle is U-shaped so as to work in unison with the specially designed J-shaped hook. The hook is designed to catch and hold the U-shaped handle, allowing it to drop down into the hook and to self-center the dumbbell at its equilibrium position. The dumbbells and suspension hooks are intended to be used together to eliminate the need for spotters, while optimizing safety.

Canadian Patent Number 2,164,368

Inventor: Vincenzo Ammoscato

Issued: June 5, 1997

An exercise bench for movably supporting a pair of dumbbells on opposed sides of the bench within reach of a user. The inventive device includes a main frame having a seat supported thereby with a back rest pivotally mounted to the seat. A center stanchion extends from the back rest to the main frame and can be adjusted so as to position the back rest at a desired at a desired angle. A pair of dumbbell supports are pivotally mounted to the center stanchion and are each operable to movably support a dumbbell thereon. A foot actuator connected to the dumbbell supports by a cable is operable both to pivot the dumbbell supports into reach prior to commencing of an exercise procedure, and to pivot the supports out of the way during the exercise procedure.

W.I.P.O. Patent Number WO 99/39778

Inventor: David P. Marcheschi

Issued: 12 August 1999

A dumbbell support assembly has a laterally extending base member have attached at each end a pivoting strut base. Each pivoting strut base has a vertical strut with a dumbbell support adapted to support a dumbbell thereon. Each dumbbell support can be rotatable about an axis defined by the strut. The assembly can be positioned anywhere along the length of the chair or bench in a desired position. The struts have a vertical height adjustment feature enabling each dumbbell holder to be adjusted in height, independently of the other. The angle of each dumbbell relative to a vertical axis can be selected, independently. The optional rotating adjustment of the dumbbell holder allows the user to precisely angle each dumbbell, independently of the other.

While these dumbbell stands may be suitable for the purposes for which they were designed, they would not be as suitable for the purposes of the present invention, as hereinafter described.

SUMMARY OF THE PRESENT INVENTION

The present invention discloses a workout bench having a plurality of incline adjustments and stanchions with means for receiving dumbbell weights. The dumbbell stanchion comprises a tubular structure having a base portion extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions comprise a weight rest stanchion with weight rest that is slidably adjustable having apertures linearly arranged in conjunction with a locking pin provided on the main vertical stanchions. The bench comprises two cushions fixedly attached to individual frame structures each hingedly connected at the center. At the other distal end of the cushion frame are collapsible leg supports that fold up allowing the cushions to rest on the floor's surface at an angle from the pivot point. Also disclosed are internal extendable braces for raising the cushions.

A primary object of the present invention is to provide a workout bench for dumbbells.

Another object of the present invention is to provide a workout bench for dumbbells having spaced apart racks for holding dumbbells therein.

Yet another object of the present invention is to provide a workout bench for dumbbells wherein a first and second cushion have means for lower one end to a 45 degree angle.

Still yet another object of the present invention is to provide a workout bench wherein the

frame of the seat cushion incorporates a hinge for selectively raising said cushion in predetermined increments to 90 degrees.

Another object of the present invention is to provide a workout bench wherein the frame incorporates a quick release rack for receiving the dumbbells off the lower end of the workbench.

Additional objects of the present invention will appear as the description proceeds.

The present invention overcomes the shortcomings of the prior art by providing a workout bench having a plurality of incline adjustments and stanchions with means for receiving dumbbell weights. The dumbbell stanchion comprises a tubular structure having a base portion extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions comprise a weight rest stanchion that is slidably adjustable having apertures linearly arranged in conjunction with a locking pin provided on the main vertical stanchions. The bench comprises two cushions fixedly attached to individual frame structures each hingedly connected at the center. At the other distal end of the cushion frame are collapsible leg supports that fold up allowing the cushions to rest on the floor's surface at an angle from the pivot point. Along with internal extendable hinges for raising the cushions.

The foregoing and other objects and advantages will appear from the description to follow. In the description reference is made to the accompanying drawings, which form a part hereof, and in which is shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments will be described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that structural changes may be made without departing from the scope of the invention. In the accompanying drawings, like reference characters designate the same or similar parts throughout the several views.

The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is best defined by the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention may be more fully understood, it will now be described, by way of example, with reference to the accompanying drawings in which:

Figure 1 is an illustrative view of the present invention in use.

Figure 2 is a perspective view of the present invention.

Figure 3 is a perspective view of the present invention.

Figure 4 is a perspective view of the present invention.

Figure 5 is a perspective view of the present invention.

Figure 6 is a perspective view of the angle adjustment of the present invention.

Figure 7 is a sectional view of the present invention.

Figure 8 is a sectional view of the hinged support.

Figure 9 is an enlarged view of the dumbbell holder.

LIST OF REFERENCE NUMERALS

With regard to reference numerals used, the following numbering is used throughout the drawings.

10	present invention
12	dumbbell weight
14	user
15	dumbbell receptacle
16	vertical stanchion
18	weight stanchion
19	weight rest
20	adjustable member
22	apertures
24	pins
26	bench
28	cushions
30	bench frame
32	hinge
34	folding leg
36	stationary leg

38 base frame

40 arrow

42 braces

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The following discussion describes in detail one embodiment of the invention. This discussion should not be construed, however, as limiting the invention to those particular embodiments since practitioners skilled in the art will recognize numerous other embodiments as well. For a definition of the complete scope of the invention, the reader is directed to the appended claims.

Turning to Figure 1, shown therein is an illustrative view of the present invention 10 in use. The present invention 10 is a workout bench for a user 14 having a plurality of incline adjustments and stanchions with means for receiving dumbbell weights 12. The dumbbell stanchion comprises a tubular structure having a base portion extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions comprise a weight rest stanchion that is slidably adjustable having apertures linearly arranged in conjunction with a locking pin provided on the main vertical stanchions. The bench comprises two cushions fixedly attached to individual frame structures each hingedly connected at the center. At the other distal end of the cushion frame are collapsible leg supports that fold up allowing the cushions to rest on the floor's surface at an angle from the pivot point. A dumbbell receptacle 15 is provided for receiving the dumbbells 12 therein.

Turning to Figure 2, shown therein is a perspective view of the present invention 10. Shown is the workout bench of the present invention 10 with receptacle 15 having a plurality of

incline adjustments and stanchions 16 with means for receiving dumbbell weights. The dumbbell stanchion comprises a telescoping tubular structure having a base frame portion 38 extending transversely to its distal ends, forming vertical stanchions 16. The vertical stanchions 16 comprise a weight rest stanchion 18 with weight rest 19 that is slidably adjustable at 20 having apertures 22 linearly arranged in conjunction with a locking pin 24 provided on the main vertical stanchions. The bench 26 comprises two adjustable cushions 28 fixedly attached to individual frame structures 30 each hingedly connected at 32 at the center. At the other distal end of the cushion frame 30 are collapsible, folding leg 34 supports that fold up allowing the cushions 28 to rest on the floor's surface at an angle from the pivot point. Also shown is stationary leg 36.

Turning to Figure 3, shown therein is a perspective view of the present invention 10. The workout bench dumbbell stanchions 16 comprise a tubular structure having a base portion 38 extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions 16 comprise a weight rest stanchion 18 with weight rest 19 that is slidably adjustable at 20 as shown by arrow 40 having apertures linearly arranged in conjunction with a locking pin 24 provided on the main vertical stanchions. The bench comprises two cushions 28 fixedly attached to individual frame structures 30 each hingedly 32 connected at the center. At the other distal end of the cushion frame are collapsible leg supports 34 that fold up allowing the cushions to rest on the floor's surface. Also shown is stationary leg 36.

Turning to Figure 4, shown therein is a perspective view of the present invention 10. The

present invention 10 is a workout bench having two cushions 28 fixedly attached to individual frame structures 30 each hingedly 32 connected at the center. At the other distal end of the cushion frame are collapsible leg supports 34 that fold up allowing the cushions 28 to rest on the floor's surface at an angle from the pivot point. Also shown are integral cushion support elements or braces 42 whereby the cushion 28 can be moved in predetermined increments from a horizontal to vertical position. Also shown are stanchions 16, 18, adjustable member 20 with pin 24, stationary leg 36, arrow 40 and weight rest 19.

Turning to Figure 5, shown therein is a perspective view of the present invention 10. The present invention 10 is a workout bench having two cushions 28 fixedly attached to individual frame structures 30 each hingedly 32 connected at the center. At the other distal end of the cushion frame are collapsible leg 34 supports that fold up allowing the cushions 28 to rest on the floor's surface at an angle from the central pivot point. Other previously disclosed elements are also shown.

Turning to Figure 6, shown therein is a perspective view of the angle adjustment of the present invention. Shown are integral cushion support elements or braces 42 whereby the cushion 28 can be moved in predetermined increments from a forty-five degree position to a ninety degree position. Also shown are hinges 32.

Turning to Figure 7, shown therein is a sectional view of the present invention 10. The present invention 10 is a workout bench having two cushions 28 fixedly attached to individual

frame structures 30 each hingedly 32 connected at the center. At the other distal end of the cushion frame are collapsible leg supports 34 on hinges that fold up allowing the cushions 28 to rest on the floor's surface at an angle from the pivot point. Other previously disclosed elements are also shown.

Turning to Figure 8, shown therein is a sectional view of the hinged support 32. The present invention 10 is a workout bench having two cushions 28 fixedly attached to individual frame structures each hingedly connected at the center. At the other distal end of the cushion frame are collapsible leg supports 34 on hinges that fold up allowing the cushions 28 to rest on the floor's surface at an angle from the pivot point.

Turning to Figure 9, shown therein is an enlarged view of the dumbbell holder 18. The present invention 10 is a workout bench having a plurality of incline adjustments and stanchions with means for receiving dumbbell weights. The dumbbell stanchion 16 comprises a tubular structure having a base portion extending transversely to its distal ends, forming vertical stanchions. The vertical stanchions 16 comprise a weight rest stanchion 18 with weight rest 19 that is slidably adjustable at 20 having apertures 22 linearly arranged in conjunction with a locking pin 24 provided on the main vertical stanchions.